

## NRR-PMDAPEm Resource

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**From:** Barillas, Martha  
**Sent:** Thursday, April 23, 2015 2:26 PM  
**To:** Richard.Hightower@duke-energy.com; Connelly, Scott (Scott.Connelly@duke-energy.com)  
**Cc:** Helton, Shana  
**Subject:** Robinson NFPA-805 Follow-up 90 day\_FM and RR RAI.docx  
**Attachments:** Robinson Follow-up 90 day\_FM and RR RAI.docx

Richard/Scott,

By letter dated September 16, 2013, Duke Energy Progress Inc., the licensee of H. B. Robinson Steam Electric Plant, Unit 2 (HBRSEP), submitted a license amendment request to change its fire protection program to one based on the National Fire Protection Association (NFPA) Standard 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition, as incorporated into Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.48(c) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13267A211). By letter December 22, 2014 (ADAMS Accession No. ML15005A073), you provided 90-day responses to staff request for additional information (RAI).

To complete its review, the NRC staff has the attached follow-up request for additional information (RAI). These RAI were emailed to you in DRAFT form on March 31, 2015 (ADAMS Accession No. ML15096A054). Duke did not need a clarification call for the attached RAI and agreed to provide the RAI responses within 30 days.

A Sensitive Unclassified Non-Safeguards Information (SUNSI) review was completed by the staff on the draft RAI and the staff concluded the RAI do not contain SUNSI.

If you have any questions, please contact me at (301) 415-2760.

Respectfully,

Martha Barillas  
Project Manager  
Shearon Harris & H. B. Robinson  
NRR/DORL/Licensing Branch II-2  
US Nuclear Regulatory Commission  
[301-415-2760](tel:3014152760)

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**Subject:** Robinson NFPA-805 Follow-up 90 day\_FM and RR RAI.docx  
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**From:** Barillas, Martha

**Created By:** Martha.Barillas@nrc.gov

**Recipients:**

"Helton, Shana" <Shana.Helton@nrc.gov>

Tracking Status: None

"Richard.Hightower@duke-energy.com" <Richard.Hightower@duke-energy.com>

Tracking Status: None

"Connelly, Scott (Scott.Connelly@duke-energy.com)" <Scott.Connelly@duke-energy.com>

Tracking Status: None

**Post Office:**

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**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

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**Recipients Received:**

## **Robinson NFPA-805 Follow-up RAIs to 90-Day RAI Response**

### **Fire Modeling (FM) RAI 01.o.01**

In a letter dated December 22, 2014 (ADAMS Accession No. ML15005A073), the licensee responded to FM RAI 01.o and explained that the individual panels considered in the main control room (MCR) abandonment analysis were effectively separated by double wall construction and therefore, propagation to adjacent cabinets was not assumed. In NUREG/CR-6850, "EPRI/NRC-RES Fire PRA Methodology for Nuclear Power Facilities," Appendix S, Section S.1, it is recommended that in order to assume there is no fire propagation between cabinets, an air-gap must be present. However, the licensee did not state such an assumption (e.g., that an air-gap was present between the walls of the electrical cabinets,) only that the panels were of double wall construction.

State whether the individual panels considered in the MCR abandonment analysis are separated by a double wall with an air-gap or provide the technical justification for not assuming fire propagation between cabinets.

### **Radiation Release 02.01**

In a letter dated December 22, 2014 (ADAMS Accession No. ML15005A073), the licensee responded to RR 02 described its evaluation of the potential for radioactive release and radiation exposure to members of the public using a quantitative analysis (i.e., dose calculation) for radiological storage and sea-land containers in the RCA Yard. The dose calculation considered dry active waste (DAW) radionuclide distribution and activities, atmospheric dispersion, distance from the RCA Yard to the site exclusion boundary, release fraction, burn time, and plume exposure period.

From the NRC staff's review of the licensee's analysis, it was determined that although gaseous radioactive releases and radiation exposures were evaluated, liquid radioactive releases and radiation exposures due to the direct effects of fire suppression activities were not evaluated.

- a) Provide an analysis that demonstrates liquid radioactive releases and radiation exposures to members of the public are as low as reasonably achievable (ALARA) and do not exceed the applicable 10 CFR Part 20 dose limits. The analysis should describe:
  - i. The liquid radionuclide distribution and activities (and their basis).
  - ii. The method, any inputs (and their basis), and assumptions used in the analysis.
- b) Describe the administrative controls such as procedures and training that will limit the amount of activity which may be present in radiological storage and sea-land type containers in the RCA Yard.
- c) Describe the engineering controls such as catch basins to collect leakage for sampling, storm drain covers, diversion equipment, or other means to prevent water runoff used to contain potentially contaminated fire suppression water runoff for radiological storage and sea-land containers in the RCA Yard.